"The difficulties of the summer journey are somewhat different in character [RCH: from the winter journey from Yakutsk to Okhotsk]. A large part of the way lies over swampy ground, on which the causeways are not kept in repair, and where the horses flounder in mud and water, into which they occasionally pitch the rider. It is no uncommon thing for horses to die under the fatigues of the way. The Yakutes, moreover, have a cruel fashion of giving their horses little food whilst journeying. A similar custom obtains farther east, among the Gilyaks, where I found that, though they gave a dog two pieces of fish daily when at home, yet, when travelling, they gave him only one, because the dogs immediately after eating are always lazy and feeble. *

* It does not appear that the Yakutes are otherwise cruel to their horses, for Erman relates that, on going up to a horse that had carried him many miles, to pat his neck by way of saying adieu, the Yakutes came up and embraced the other horses, putting their arms round their necks and hugging them like children. Mr. Hill, too, discovered in a very practical way the regard of the Yakutes for their horses, when, food having run short, and after a dinner of only cranberries and nuts, he proposed that one of the animals should be killed and eaten, the Yakutes replied that they never killed one of their horses until they had passed five whole days together without any sort of food. It would be a shame, they said, that while they

had tea and a morsel of sugar, and the prospect before them of getting other food, one of the poor creatures should be slain. Mr. Hill, therefore, and his merchant friend had to take their guns and hunt for game, with a keenness which they had never known before.

These, then, are some of the difficulties of the old route, from Irkutsk to the Pacific, which happily it did not fall to my lot to be obliged to encounter; but I crossed the Baikal instead, and, after making a détour to the Chinese frontier, continued across the Buriat steppe to the Amur."

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southern regions, agriculture and the processing industry in the central part, and reindeer-breeding and trapping in the northern regions.

Particular attention is given in Yakutiya to transportation. The socialist reconstruction of the new Republic began with almost a total lack of roads. The chief means of transportation was always and is still by boat. During the Five-Year Plans the transportation system has undergone a radical reorganization. Whereas in 1917 the entire Lena fleet consisted of 37 outmoded steamers and 113 barges, by the beginning of World War II the Yakut Republic had 127 steamers and more than 500 barges.

Before the Revolution steamer traffic was restricted basically to the upper and lower regions of the Lena as far as the mouth of the Vilyuy. At the present time steamers sail the whole length of the Lena, Vilyuy, Aldan, Olekma, Amga, Chara, and Maya, and all the other major northern rivers.

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The development of the Yakut rivers is directly connected with a very important measure adopted by the Soviet government, namely, the opening up of the Northern Seaway, which through the heroic efforts of polar explorers, sailors and fliers has been turned into a permanently operating route. In the 1920's the Vladivostok-Kolyma routes were reopened. In 1932 the icebreaker Sibiryakov made a historic journey by sailing directly and without a stop from Archangel to Vladivostok. The heroic trip made by the Chelyuskin (1933) proved the navigability of the Northern Seaway for conventional-type steamships. In 1936 there was opened a route along the river Yana, in 1937 the Anabar, and in 1938 the Olekma and the Indigirka. The opening up of the Northern Seaway sharply stepped up the carriage of freight to the northern regions of Yakutiya.

The opening up of navigation in northern Yakutiya helped the economic resuscitation of this region. From that time on, the mining and fishing industries began to develop and strengthen. Commodity turnover increased sharply as a result. Coal, timber, salt and food products were delivered to the lower regions of various rivers from Yakutiya. The river routes now being exploited stretch more than 9000 kilometers—almost a quarter of the circumference of the globe.

River traffic has also speeded up. Comfortable double-decker ships of the Volga type run from Osetrovo to Yakutsk, a distance of about 2000 kilometers, in only 5 days.

In 1952 the Lena River Steamship Line acquired new powerful diesel ships of the latest Soviet type.

The Lena River route is now linked to the Siberian Sea artery by a direct railroad line (from Tayshet to Osetrovo docks).

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The construction of overland roads has become a matter of nationwide interest in Yakutiya. About 2500 kilometers of permanent highways with winter road camps have been built. The construction and operation of highways have involved tremendous difficulties, such as coping with snowdrifts, ice floes, and ice-covered snow. Of the motor highways linking Yakutiya with the outside world, a particularly important one is the Amur-Yakutsk Highway which connects Aldan, and in winter Yakutsk, with the Ussuriysk railroad.

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At the present time freight is brought into Yakutiya by four different routes: The Upper Lena wharves (Kachug, Zhigalovo), the Osetrovo wharf, the Amur-Yakutsk Highway, and the Northern Seaway.

Aviation routes connect Yakutsk with Irkutsk, Krasnoyarsk, Novosibirsk and Moscow. The local lines in operation are Yakutsk-Aldan, Yakutsk-Bulun-Tiksi, etc.

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The centuries-old isolation of this region from the chief centers of the country is now a thing of the past. Extensive development has also

The personal property of the collective-farm members includes herds of reindeer (up to 100 head), transport equipment, vertical nets, hunting guns and hunting and fishing tackle. Reindeer-herding remains the chief branch of the economy, but is now done in accordance with good animal husbandry practice. A reindeer technician and a veterinary assistant are attached to each team, which looks after a subherd.]

The Dolgan reindeer-herders on the collective farms pasture the herds in good grazing ground, far from the herding tent by day, and as night falls drive them back to the tent. Having rested, the reindeer at midnight begin to feed near the tent; at dawn they are driven to new feeding grounds some distance away. This grazing system, on the one hand, keeps the reindeer well fed and, on the other hand, they do not stray during the night and are easy to watch. Twenty-four-hour-a-day, year-round guarding of the reindeer has become a rule in collective herding.

[The herd of reindeer is constantly growing. Thus, in the Avamskiy Rayon, the number of reindeer increased over the last five-year period, by more than 50%. The necessity of yearly migrations along the tundra from Dudinka to the Anabar has been eliminated; previously this had a most unfavorable effect on Dolgan reindeer-herding. The demand for pack-reindeer has been reduced, due to the carriage of goods into the Avamskiy and Khatangskiy Rayons by the Northern Sea Route; from here they are brought to remote inland points by steamboat or cutter. Previously, the only route connecting the Dudinka with the Avamskiy and Khatangskiy Rayons in the winter was the reindeer highway from Dudinka to Popigay. Connections are now maintained winter and summer by airplane, although reindeer transport is still of some importance. Its technology is unchanged.

[Hunting technology has been reconstructed. Traps are set in the autumn before the beginning of the blizzards. For this purpose, hunting brigades sometimes journey to the north for several hundred kilometers into the taiga, spending the nights in sled-tents with iron stoves. Hunting brigades are made up before the beginning of the season, traps being distributed on the basis of 150–200 pitfall traps and 10 springtraps per hunter. With the first snow the brigades go out into the tundra and begin to hunt wild reindeer. Foxtraps are baited with the surplus meat obtained. In the Khatangskiy Rayon alone, where the majority of the hunters are Dolgans, the collective farms during the 1948–49 season set 5000 new pitfall traps and prepared 1000 bait-pits for foxes, in which they placed more than 40 tons of bait.

[Fox-hunting begins on November 15th. Springtraps are placed by experienced hunters at places where wild reindeer have been killed in the autumn, or on the bloody tracks of wounded wild reindeer near bait-pits, or previously discovered burrows. Hunting is the main source of income for Dolgan collective farms. The previous predatory methods have gone out of use—spearings, stockades, geese nets. Fishing has become important in a number of areas. Vegetable-gardening and animal husbandry (other than reindeer) have developed on many Dolgan collective farms. The members grow chiefly radishes, cabbage and onions.

[A process of settling down the previously nomadic population is in progress. In the new settlements where the collective-farm members whose work does not make them nomadic live, dwelling-houses of the Russian type have been built, along with various other farm and public buildings. Many settlements have their own electric stations.]

The members of reindeer-herding and hunting brigades lead a nomadic life. Their families frequently travel with them. Separate nomadic groups are now set up, not on the basis of individual relations among different